(12) UK Patent Application (19) GB (11) 2 311 193 (13) A

(43) Date of Printing by UK Office 17.09.1997

- (21) Application No 9711519.0
- (22) Date of Filing 10.10.1995
- (30) Priority Data (31) 36140294
- (32) 22.12.1994
- (33) US
- (86) International Application Data PCT/US95/13522 En 10.10.1995
- (87) International Publication Data W096/19905 En 27.06.1996
- (71) Applicant(s)

 Motorola inc

(Incorporated in USA - Delaware)

1303 East Algonquin Road, Schaumburg, Illinois 60196, United States of America

(72) Inventor(s)

Victor Hawes Cutler Jr Gerald Joseph Davieau

- (51) INT CL⁶ H04B 7/212 // H04B 7/185 , H04Q 7/28 7/34 7/36
- (52) UK CL (Edition O)
 H4L LDRR LDSE LFM L1H10 L1H8A
- (56) Documents Cited by ISA
 US 5448621 A US 5268694 A US 4831373 A
- (58) Field of Search by ISA
 U.S.: 455/3.2, 12.1, 33.1, 34.2, 53.1, 62, 63, 67.1, 89;
 370/ 75, 95.1, 95.3, 97; 364/514C
- (74) Agent and/or Address for Service
 Sarah J Spaulding
 Motorola Limited, European Intellectual Property
 Operation, Midpoint, Alencon Link, BASINGSTOKE,
 Hampshire, RG21 7PL, United Kingdom

(54) Statistically robust traffic modelling method and apparatus

method and apparatus for controlling communication channel access in a communication system (10) determines channel allocations (106) which represent limits on communication channel access and conforms operations of the system (10) to the channel allocations (106). The channel allocations are determined by dividing a surface which emanates signals from communication units (26) into elemental areas, collecting past traffic data (102) describing past communication channel usage by the communication units (26) located in the elemental areas, generating a traffic model (104) for a future time interval based on the past traffic data, and determining the channel allocations (106) based on the traffic model.

100 BEGIN PREDICTIVE SYSTEM OPERATION COLLECT TRAFFIC DATA GENERATE TRAFFIC MODEL DETERMINE CHANNEL 106 ALLOCATIONS TRANSMIT 108 CHANNE ALLOCATIONS CONFORM OPERATIONS TO CHANNEL ALLOCATIONS END 112

h.